



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/510,151	05/30/2006	Kia Silverbrook	YU181US	6653
24011 7590 10/04/2007 SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, 2041 AUSTRALIA			EXAMINER HUFFMAN, JULIAN D	
			ART UNIT 2853	PAPER NUMBER
			MAIL DATE 10/04/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/510,151

Applicant(s)

SILVERBROOK, KIA

Examiner

Julian D. Huffman

Art Unit

2853

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 5/30/06.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 10/5/04 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 7/12/05

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Double Patenting

1. A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

2. Claims 1-16 are rejected under 35 U.S.C. 101 as claiming the same invention as that of claims 1-16 of prior U.S. Patent No. 6,679,584 B2. This is a double patenting rejection.

The claims of the application are identical to those of the patent.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-10 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. (U.S. 6,467,870 B2).

Matsumoto et al. discloses :

With regards to claims 1-3, a method of pagewidth printing, the method comprising the steps of:

feeding a print medium through a printing zone; and
ejecting drops of ink at a rate from a print assembly on to the print medium in the printing zone to generate an image on the print medium.

With regards to claim 4, a print assembly for pagewidth inkjet printing, the print assembly comprising

an elongate carrier (14) that is mountable on a support structure of a printer in an operative position with respect to a platen of the printer;

a number of printhead chips (22) that are positioned on the carrier, the printhead chips together defining a printhead that is configured to eject drops into a printing zone defined between the printhead and the platen of the printer; and

control circuitry that is also positioned on the carrier and that is configured to control operation of the printhead chips (fig. 2, element 38, column 7, lines 28-31 and 41-45).

With regards to claim 10, this limitation does not further limit the structure of the claimed device.

With regards to claim 16, an inkjet printer that comprises

a support structure;

a platen positioned in the support structure (column 1, lines 12-22);

a print assembly positioned operatively with respect to the platen, the print assembly comprising an elongate carrier (14);

a number of printhead chips (22) positioned on the carrier, the printhead chips together defining a printhead that is configured to eject drops into a printing zone defined between the printhead and the platen; and

control circuitry that is also positioned on the carrier and that is configured to control operation of the printhead chips (fig. 2, element 38, column 7, lines 28-31 and 41-45); and

a feed mechanism positioned on the support structure for feeding a print medium through the printing zone (column 7, lines 46-51).

Matsumoto et al. does not disclose ejecting drops at a rate of at least twenty billion drops per second, or the printhead chips together incorporating at least two hundred thousand nozzle arrangements, or between forty and one hundred printhead chips positioned on the carrier.

Matsumoto et al. disclose that the number head chips is not limited (column 6, lines 23-26).

Matsumoto et al. disclose CMOS driver circuitry on each printhead chip which functions as control circuitry for ejecting all of the nozzles to achieve page width printing (fig. 2, element 38, column 7, lines 28-31 and 41-45).

It would have been obvious to one having ordinary skill in the art at the time the invention was made to provide, in the invention of Matsumoto et al., a larger number of nozzle arrangements, such that at least twenty billion drops per second may be ejected. The reason for performing the modification would have been to select the number of nozzle arrangements and print head chips to provide the desired size, number of pixels and resolution (column 6, lines 23-26).

5. Claims 11-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsumoto et al. in view of Fabbri (U.S. 6,068,367).

Matsumoto et al. disclose CMOS driver circuitry on each printhead chip which functions as control circuitry (fig. 2, element 38, column 7, lines 28-31 and 41-45).

Matsumoto et al. further discloses a micro electromechanical system since the device converts electrical energy into mechanical energy to propel and ink droplet, and the device structure is on the micro scale.

Matsumoto et al. do not expressly disclose control circuitry and CMOS driver circuitry provide on each printhead chip.

Fabbri discloses providing extensive control circuitry in addition to driver circuitry on each printhead chip in a page width printer (column 5, lines 36-61).


It would have been obvious to one having ordinary skill in the art at the time the invention was made to, in the invention of Matsumoto et al., provide control circuitry on each printhead chip. The reason for performing the modification would have been to, as taught by Fabbri, simplify the structure of the lines used to connect the printhead chips (column 5, lines 55-57).

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Julian D. Huffman whose telephone number is (571) 272-2147. The examiner can normally be reached on 10:00a.m.-6:30p.m. Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Meier can be reached on (571) 272-2149. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


JULIAN D. HUFFMAN
PRIMARY EXAMINER
9/29/07